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MAJOR JAMES RENNELL

Born 3 December 1742. Died 29 March 1830

ON the centenary of his death, which fell on 29 March 1930, the Royal Geographical Society did honour to the memory of Major James Rennell. Such a tribute was right and just for two reasons. Not only is he recognized to-day, as he was by his contemporaries both at home and abroad, to have been the first eminent British geographer; but it seems hardly open to doubt, though he did not live to see the Society actually constituted, that it was in consultation with him that his intimate friend Admiral Smyth began to enrol members for an institution which was being simultaneously promoted by Sir John Barrow, the secretary to the Admiralty. The society was in fact founded within two months of his death. It is appropriate therefore that a brief commemorative sketch should find a place in its *Journal*.

The career of Rennell may be divided into two periods, that of his earlier years of adventure as a sailor, an explorer or a surveyor, and that which covered more than fifty years at home of laborious and far-reaching study extending over every field of geographical activity.

Life did not open very auspiciously for the future geographer, who was born on 3 December 1742 at Upcot, one of two small Devonshire properties situated about a mile from Chudleigh, on the river Teign, which had been owned for several generations by his family. His name, which has been spelt in more ways than one, appears to be a variant of the better-known Reyfell, borne by an ancient Devonshire family of French origin. His grandson learned from him that one of his earliest memories dated from his fifth year, when his father embarked as a captain of artillery for the war in the Low Countries. And there soon afterwards, in July 1747, Captain John Rennell was killed in action, leaving a widow with a son and a daughter in such straitened circumstances that they were obliged to part with the Devonshire estates, one of which however was eventually recovered after a lawsuit in 1769, while James Rennell was in India.

The widow with her children found a temporary home with a cousin, the rector of Drewsteignton, near Exeter, but on the transfer of this Dr. Rennell to a living in Northamptonshire she made a second marriage to a former



Major James Rennell, F.R.S.

Chudleigh neighbour. Having a family of his own, Mr. Elliot the stepfather, whose means were small, was unable to provide for two additional children, and young Rennell was at the age of ten practically, if not formally, adopted by the new Vicar of Chudleigh, the Reverend Gilbert Burrington, with whom he found a very happy home. There is a family tradition that already in those early years he showed evidence of his future tastes by making a map of the country surrounding the village and the venerable church in which the effigies of Sir Piers Courtenay and his wife may still be seen kneeling side by side. The only schooling he enjoyed seems to have been at the local grammar school.

But young Rennell was one of those who absorb all the books which come in their way and educate themselves. Like so many other lads of Devon in the days of Hawke and Anson, he felt the call of the sea. Through the influence of a mutual friend his guardian was able to secure for him an appointment as midshipman in the frigate *Brilliant*, which Captain Hyde Parker was then engaged in commissioning. And so at the age of fourteen he left his kind friends at the vicarage for good, as it was to prove, and took the Exeter coach which ran through Chudleigh to Plymouth. A month or two later a boy's dream of adventure seemed to be fulfilled when the war with France broke out which was to last for seven years. Life was rough and fare monotonous in those days on the orlop deck for the midshipman who, as Rennell's contemporary Falconer described him, had to wield "the sword, the saucepan and the book," and was not "passing rich on 30 pounds a year." But he was fortunate in his messmates, and particularly in his commanding officer. Hyde Parker had served under Anson in the famous voyage of circumnavigation, and his interest in all marine problems no doubt led him to encourage his midshipman's natural disposition for surveying.

The first chart made by Rennell which has been preserved was a careful study, dedicated to Lord Howe, of the Bay of St. Cast, where he witnessed the disastrous re-embarkation of the troops originally landed for an attack on St. Malo, which had to be abandoned. A rearguard of Grenadiers, 1200 strong, under Colonel Davy, was practically annihilated under his eyes, while the frigate drew too much water to get within effective range of the enemy. In the following year the *Brilliant*, under a new commander, had the fortune to capture two French privateers. A modest but very welcome share of prize money fell to the midshipman, who after a long spell of service at sea was granted leave. It was characteristic of him that he spent a portion of this money on books.

His first protector, Captain Hyde Parker, now in command of the *Norfolk*, a 74-gun warship proceeding to the East Indies, had consented to give him a berth. But the transport on which he had secured a passage to Portsmouth, where she was fitting out, ran on a shoal, and though she got off again the delay had been fatal and he found the *Norfolk* had sailed. After some weeks of the uncertainty incidental to the seaman's life in the days of sail, he secured a place as a midshipman in the frigate *America*, and started for Madras on 6 March 1760. Eighteen years were to pass before he saw his native land again. The voyage out, during which Rennell made plans of harbours and anchorages, occupied six months, which included a fortnight's stay in Madagascar to give

the crew the necessary antidote to scurvy—fresh food and fruit. The ship would have been a happy one but for the violent temper of the captain, whose use of his fists and his stick aroused the bitter resentment of the midshipmen.

On their arrival at Madras the influence of Hyde Parker secured Rennell's transfer to the *Grafton*, of which he had taken over the command when the *Norfolk* became the flagship. The British fleet, consisting of sixteen ships of the line with six frigates under Admiral Stevens, proceeded to Pondicherry, to co-operate in a blockade which Colonel Coote had organized on land. Rennell was selected to take part in an expedition to cut out the French frigate *Baleine* and an Indiaman, which were lying under the guns of the fort. The frigate, which was boarded at two in the morning, was for at least an hour under their fire before she could be got to sea. But the operation was completely successful and the losses relatively small. During the rainy season the majority of the ships went to Ceylon, and there Rennell made a survey of the harbour of Trincomali. It was no doubt also at this time that he first investigated the chain of sandbanks, known as Adam's Bridge, separating Ceylon from the south-eastern extremity of the Coromandel coast, across which he declared that a navigable passage could be maintained by dredging the strait of Ramisseram. It was pointed out in a biographical sketch of Rennell issued in 1842 by Baron de Walkenaer, the secretary of the French Academy, that, though no notice was taken at the time of the suggestions put forward by so young and unknown an officer, the idea was revived some sixty years later. Almost immediately after their return a hurricane burst with disastrous effect upon the fleet while lying at anchor. An Indiaman and two ships of the line were lost, five more were dismasted, and three fire ships were driven ashore. The only vessels which saved their masts were the *Grafton* and the *Norfolk*, both of which Hyde Parker had commanded. The blockade of Pondicherry was none the less maintained until it capitulated on 17 March 1761.

A project for the capture of Bourbon and Mauritius, conceived by Admiral Cornish, who after the death of Stevens succeeded to his command, next took the East Indies squadron to Rodriguez, an island 344 miles east of Mauritius, originally discovered by the Portuguese, which the Governor of Bourbon had annexed. There Cornish had been instructed to await a fleet under Keppel, who was to take over the direction of the expedition. Rennell employed his time in making a survey of the harbour, Port Mathurin, and studied the natural history of this curious volcanic island surrounded by a reef of coral. It was then well wooded and haunted by giant land tortoises. The coastal waters were alive with fish and turtle, of which, Rennell wrote in one of his letters, the fleet was calculated during its stay to have consumed sixty thousand. But seamen cannot live on turtle alone, and after a stay of seven weeks the exhaustion of his supplies compelled Cornish to return to Madras, where he learned to his chagrin not only that Keppel had not started, but that no preparations had ever been made for the expedition. The plan which he could perfectly well have carried out with the resources at his disposal was thus rendered abortive by the ineptitude of the authorities at home.

Commissions and promotion in the navy were in those days only procured by favour, and young Rennell was wholly without interest, though he never

lacked friends. There was evidently some endearing quality in the young sailor which made him popular with his messmates, that quality no doubt which his letters reveal of always making the best of things. Six years of meritorious service at sea had gained for him the esteem of his captain, who suggested to him the advantages of entering the East India Company's navy. He was accordingly lent experimentally as surveying officer to one of the Company's warships which was to endeavour to establish trading relations at various places on a cruise, the ultimate destination of which was the Philippines. When he returned to Madras about a year later with charts from the Nicobar islands, Malacca, and North West Borneo, he was at once offered the command of a ship which, in consequence of the absence of his captain, he was then unable to accept. With the termination, however, in 1763 of the Seven Years' War, which made any prospect of a naval career precarious, he decided to enter the Company's service and was discharged from the Royal Navy.

The first ship of which he was given the command was destroyed by a hurricane in Madras roads. Being on shore at the moment when the vessel was struck, Rennell was fortunate in escaping with his life, but all his modest possessions were lost. It was however not long before he was appointed to a small coasting vessel, apparently chartered by the Company. The Governor of Madras, Mr. (afterwards Sir Robert) Palk, was also a Devonshire man whose home at Haldon was close to Chudleigh. This may account for the interest he took in the son of a former neighbour. Through the governor's influence Rennell was given a commission to superintend the transport and landing of troops and stores destined for the siege of Madura in the south of the Presidency. The work of the small squadron commanded by this very young commodore earned for him the thanks of the Madras Government and a donation, which was the more merited because in the intervals of service he had carried out a number of valuable surveys. Then the miracle happened. At Calcutta he fell in with a squadron under a Captain Tinker who had shown him particular kindness during his naval service, and he renewed acquaintance with a former messmate who had been his closest ally in the *Brilliant*. This Mr. Topham, who had joined the Company's civil staff, was in intimate relations with the Governor of Bengal, Vansittart, the brother-in-law of the Governor of Madras. Vansittart was anxious to have his province carefully surveyed, and through the recommendation of these friends Rennell found himself at the age of twenty-one appointed to carry out this important work. To facilitate his duties he was given a commission in the Bengal engineers, first as an ensign, from which rank he rose quickly to be a lieutenant. In 1766 he became a captain, and finally on his retirement a major. Thus it happened that the geographer who was essentially a sailor came to be distinguished thereafter by the modest military title of which Baron Walkenaer wrote many years later: "ce simple titre de major, que l'on s'est habitué à ne point séparer du nom du géographe anglais pour le distinguer de ses homonymes, semble, lorsqu'il est question de lui, acquérir un lustre supérieur aux autres titres."

His first attention was paid to the course of the Ganges. A manuscript recording meteorological and geographical observations made on the river, which was found among his papers and sent out to India some hundred and forty years later by his great grandson, was found by the Survey Department there to be

extremely valuable for comparative purposes. The initial work accomplished was highly esteemed by Mr. Vansittart, whose recommendations to the Company secured for Rennell an income of £1000 a year, out of which he at once made adequate provision for his mother and sister, while he testified his gratitude to Mr. Burrington by handsome presents to his guardian's sons.

Before two years were over his survey had brought him within sight of a vast mountain range to which he gave the name of the Tartarian Mountains. To-day we call that system Himalaya. His headquarters were established at Dacca, where he built himself a house. It was there that he learned to know Mr. (afterwards Sir Hugh) Inglis, a wealthy India merchant, who in 1812 became chairman of the Company, and remained until his death in 1820 one of Rennell's most intimate friends. Ensign Richards of the Engineers was appointed to be his assistant by Lord Clive, who gave every encouragement to the pioneer work of the young surveyor in a difficult, unhealthy, and at that time almost unexplored country.

In 1766, on the frontier of Bhutan, Rennell came very near to losing his life, through volunteering to join an old naval acquaintance, Lieutenant Morrison, then serving in a Sepoy regiment, on a dangerous expedition against a fanatical tribe known as the Sanashi Fakirs, who had looted a town just off the line of march. While reconnoitring a village where they had not expected to meet with any of the enemy, the officers found themselves surrounded by the Fakirs. Morrison, Richards, and the Sepoy adjutant cut their way out, the two last with wounds. Rennell's Armenian assistant was killed, and he himself, his pistol having missed fire, retreated, defending himself with a short sword against the sabres of his assailants. He was so severely wounded that his case seemed desperate, and he was therefore only pursued by a single tribesman, whom he managed to put out of action. His remaining strength he used to run, under a constant fire, towards the detachment coming to the rescue. Before they could reach him he had fainted from loss of blood. His shoulder-blade and some ribs had been cut through by a sabre. He had a number of lesser wounds and very severe cuts in the arms and the left hand, the forefinger of which he was never after able to use. There was no surgeon with the expedition. He was carried, as all believed in a moribund condition, with pounded onions on his wounds, and laid in an open boat which took six days to reach Dacca, where his friend Dr. Francis Russell, the surgeon of the station, despaired of saving him.

But the strong vitality which in seafaring days had kept him immune from scurvy when the majority of a ship's company were affected, carried him through. Slowly his wounds healed and the movement of his arms was restored. But his health was permanently affected by the loss of blood, and his right arm never entirely recovered its freedom of action. Lord Clive, who created for Rennell the definite rank of Surveyor-General, gave orders that thereafter he should always be escorted by a company of Sepoys. Rennell owed much to Clive, who did justice to good work, but as a man dependent on his salary he greatly resented a measure which the Governor, who had been instructed to enforce economies, now took to reduce military allowances. He was himself curtailed of six rupees a day. In a letter written at that time, when the officers of the first and third brigades threw up their commissions, so far from condemning their insubordinate action Rennell compared the spirit of a State composed of

merchants to that of the Carthaginians who disbanded their mercenary troops after they had saved them from ruin.

The actual field-work of the survey occupied some seven years, and in the country east of the Brahmaputra, where both man and beast were savage, might almost be said to have been carried out at the point of the bayonet. An attempt to ambush the expedition was defeated. A leopard mauled five of his men before Rennell succeeded in killing him with a bayonet driven down its throat. In 1771, as a diversion from his normal duties he was instructed to lead an expedition against a band of border raiders. It entailed a rapid march over 320 miles, accomplished in fifteen days, probably a record in such a climate. Malarial fever also frequently interrupted his work. In after years he used to recall these stories of his Indian adventures to his grandson, who repeated them to the present writer.

In 1768 Mr. Cartier, the former Resident in Dacca with whom Rennell had become very intimate, succeeded to the Governorship. It was in his house at Calcutta that the Surveyor-General met his future wife, Jane Thackeray, sister of the Governor's secretary. She was one of fifteen children of Thomas Thackeray, headmaster of Harrow and archdeacon of Surrey, whose family played a distinguished part in the early administration of India. The youngest son, William Makepeace, grandfather of the author who was himself born in Calcutta, entered the Bengal service in 1765, and two of his eight sisters had gone out to keep house for him. After a year's engagement the marriage took place at the Governor's house in October 1772, the year in which Warren Hastings relieved Mr. Cartier. The union was a very happy one, and Mrs. Rennell had the pleasure of seeing her sister, who was seventeen years younger, married to Mr. Harris, the Resident, during a visit which she paid to Dacca.

The period following his marriage was chiefly devoted to co-ordinating materials accumulated during many years of collection and in the preparation of the fourteen sheets of the Bengal Atlas. When this work was practically completed by the beginning of 1777 Rennell, whose health had been seriously undermined by wounds and fever during his long and uninterrupted residence in India, applied to the Governor for a pension, which Warren Hastings, in view of his exceptional services, recommended the Directors to fix at £600 a year. He left Calcutta with his wife in March 1777 in the *Ashburnham*, which made St. Helena without incident. The first child of their marriage, a daughter born at Dacca, had only survived a year, and, as another confinement was expected and the duration of sea voyages was in those days incalculable, they decided to await the event there. And so it happened that a daughter, who was to become the active collaborator of her father in after years, was born in St. Helena on 12 October 1777 and was given her mother's name. Only a storm which kept the decks awash for several days broke the monotony of a two months' voyage to Portsmouth, where the *Hector* at length arrived in February 1778. Rennell's mother had died two years earlier, but the family were made very welcome by Mrs. Thackeray at Harrow. The analogy which some twelve years earlier Rennell had suggested between the conduct of the Carthaginians and the attitude of a Merchant State towards its officers must have recurred to his mind when he found on returning home that the Directors had cut down the

figure proposed for his pension from £600 a year to £400. Nor were they disposed to defray the cost of publishing the Bengal Atlas, the fruit of so many years of labour, which was produced by subscription from the Company's servants in India. Two years later however they repented of their former decision, and in 1781 decided to grant the full pension which Warren Hastings had recommended.

After visits to his relatives by marriage and to his old home at Chudleigh, where his former guardian and constant friend Mr. Burrington was still in charge of the rectory, the Rennells settled in London, first in Charles Street, Cavendish Square, where two boys were born, and subsequently, in 1781, at 23 Suffolk Street, which has since been renamed Nassau Street. There began the second period of his life's activity, with the preparation of his Map and Memoir of Hindoostan, which first gained him fame with a wider public. Lack of opportunity in his early years had deprived him of a classical education, but his assiduous reading had taught him that the Greeks had been the first students and exponents of the science to which he had devoted his life. As a basis from which to set out he accordingly resolved to investigate with his habitual thoroughness the legacy of the ancient world as bequeathed not only by such exceptional travellers and observers as Herodotus, Xenophon, and Thucydides, or geographers like Ptolemy and Strabo, but by all the authors of the ancient world whose writings could throw light on the subject. Unfortunately their works were only accessible to him through English and French translations, many of which in those days were, like Beloe's Herodotus which he used, of inferior quality.

Of the geographical literature of the Middle Ages and the Renaissance, so far as it was in those days accessible, Rennell made himself a master. A very retentive memory assisted his comparative analysis, and reflections and analogies introduced into the text of his geography of Herodotus show how wide had been the range of his studies. As his reputation became established, moreover, he had the advantage of receiving informative communications from British travellers and from such eminent authorities abroad as Niebuhr and Von Hammer. He entertained the greatest respect for his French predecessors in geographical research, Delisle and especially D'Anville, who was born some forty-five years earlier, and, though he sometimes differed from the conclusions of one whom he looked up to as master, his criticisms were always advanced with deference and respect.

The qualities of simplicity and sincerity which had won him many friends in his seafaring days and in the Company's service quickly drew round him in London, where his wife's family had a numerous connection, a group of remarkable men. In 1781 he was elected a Fellow of the Royal Society, a privilege to which the publication of the Bengal Atlas entitled him. Its president, Sir Joseph Banks, the naturalist and traveller, who had been with Captain Cook on his first voyage round the world and who contributed from his considerable fortune to the advancement of science, became his close intimate. The great Whig peer, Lord Spencer, to whom he dedicated his Herodotus, took him into very cordial friendship. Dr. Gillies the Scotch historian, Marsden the translator of Marco Polo, and Inglis his former acquaintance at Dacca and afterwards chairman of the Company, were members of the

group with whom he was constantly associated. These and many more meetings in each other's houses formed one of those pleasant coteries of the learned which were possible in the less distracted London of the late eighteenth and early nineteenth centuries. Like most of the men with whom he was in touch, Rennell was a Liberal or rather a Whig in politics, but while holding strong opinions he was careful to restrict his activities to a purely scientific field.

The contribution to geographical knowledge on which Rennell's fame is established included three distinct branches of research. He had, in the first place, contemplated a comprehensive study of the geography of Western Asia, from the Mediterranean to India, beginning from the earliest records, and for this purpose had amassed a vast number of notes. A treatise and a map indicating the scope of the work which he had in view were published after his death by his daughter. To this ambitious project belong his 'Geographical System of Herodotus,' the 'Expedition of Cyrus,' and the 'Topography of the Plain of Troy.' The 'Geography of Herodotus,' whose accuracy of observation and correctness in marking relative positions he strove to vindicate, acquired for him an European celebrity. The second volume is entirely devoted to Africa. He brought his knowledge of currents and trade winds to bear on the legend of the circumnavigation of Africa by Phoenician sailors, and after a careful examination of the conditions prevailing in those days, concluded that such a voyage might have been accomplished in two and a half years. Applying similar criteria he also devoted a section of the book to the *Periplus of Hanno*.

The foundation in 1788 of the African Association, of which Rennell was at once made an honorary member, led him to concentrate his activities for a considerable time on the study of African geography. He worked on the routes and classified the observations of the travellers who had personally investigated the northern half of that continent, or had been despatched for that purpose by the Association, William Browne, Major Houghton, the German explorer Friedrich Horneman, and the most remarkable of the four, Mungo Park. Rennell, who died before the problem of the Niger had finally been solved, published a series of *Memoirs with Maps* prepared for the African Association.

The third field of research, of which he may be regarded as the originator, was connected with the science of oceanography, a name which does not seem to have been established in the language until the systematic co-ordination of his studies of winds and currents created the need for such a designation. He had, as has been shown, begun from his earliest years to prepare charts to assist navigation, but his first serious effort as a hydrographer was his *Chart of the Bank and Current of Cape Lagullas*, which was published in 1778. As a sailor he had studied by personal observation the currents of the Atlantic, the Trade-winds, the Monsoons, and their influence on the drift in the Ocean, and he assembled over a number of years all the information he could gather from the experience and the log-books of his naval friends. His seven charts of the winds and currents with a memoir, based on an immense store of material which he had reduced to system by 1810 and continually revised in subsequent years, were only published by his daughter after his death. The last of the seven is devoted to the current with which his name is associated. He had already, in 1793, read before the Royal Society a paper embodying his "Observations of a current which often prevails to the westward of Scilly, endangering the safety

of ships that approach the English Channel." Up to that time navigators had not realized that the current which turns eastward round Capes Ortegal and Finisterre and sweeps along the French shore of the Bay of Biscay, continued to flow, with varying force according to the state of the winds, across the mouths of the English and the Irish channels. And yet the deviation from their course of vessels when the drift was exceptionally strong had been responsible for many disasters and, as now became clear, accounted for the loss of Sir Cloudesley Shovel's flagship and two others of the line in 1707. Further evidence regarding the action of this current was submitted in a second paper read to the Society in 1815. The great service rendered to navigation by this identification makes it right that his memory should be preserved in the name of Rennell's Current.

This indefatigable worker also found time to write papers on historical or archaeological subjects associated with geography, such as the Marches of the British Army in the Peninsula of India, the Ruins of Babylon, the Identity of the Site of Jerash, the Landing of Julius Caesar in Britain, and the Shipwreck of St. Paul. His correspondence with Lord Spencer covers a wide range of interests, including details connected with the naval service, and his letters to friends and fellow-workers are full of valuable suggestions and evidence of close observation. But it is not possible in a brief memoir to do justice to the contents of the many publications in which his researches are recorded. Those who may be interested to pursue the subject will find them summarized in the excellent biography of Rennell prepared by the late Sir Clements Markham for the Century Science Series. A valuable appreciation of the great geographer was also contributed by Sir Henry Yule to the *Royal Engineers Magazine*.

Rennell's unquestioned authority as a student of oceanography led to an offer of the post of First Hydrographer to the Admiralty, which however he did not see his way to accept, as it would have interfered with his work of research and co-ordination. This seems to have been the only official recognition ever entertained of his eminent services to science and navigation. But he received universal recognition from the learned in every European country. In a contemporary record of the 'Public Characters of 1803-4' it is maintained that scarcely any work having reference to geography had been published in preceding years which had not been submitted to his correction, and that none were ever returned without attention. The courtesy and generosity with which he assisted the labour of others were indeed characteristic of this kindly sage, and in his obituary notice in *The Times*, where it is repeated that few ever applied to him in vain, the following passage occurs: "Adapting himself to the level of all who consulted him, he had the happy art of correcting their errors without hurting their feelings, and of leading them to truth without convicting them of ignorance."

As early as 1791 Rennell had been awarded the Copley Medal of the Royal Society. In his presidential address Sir Joseph Banks referred to the Bengal Atlas as having been "executed with a degree of exactness that has not been paralleled by the most applauded geographers of this or any preceding age," and in discussing the Memoir of the Map of Hindoostan he went on to say: "The perspicuous and masterly style in which it is composed clearly indicates that, though geography is the field on which he has principally relied for the

cultivation of his laurels, he is able to reap no inconsiderable crop when he chooses to labour in the more capricious harvest of *belles lettres*."

Rennell had indeed acquired a clear and masterly command of English. His feeling for the value of language is reflected in a passage in his 'Geography of Herodotus,' where he writes: "It ought perhaps to afford a triumph to literary men to reflect that the English language had received its highest degree of improvement before the epoch of our great colonization." He therefore frankly admitted his gratification when the gold medal of the Royal Society of Literature was conferred upon him in 1825. He had been made a foreign Associate of the French *Institut National* in 1801, in token of which he received a silver medal inscribed with his name. The Academy of St. Petersburg and the Gothenburg Society had also enrolled him among their members. As a testimony of the esteem in which his work was held on the Continent Rennell very greatly appreciated the visit paid him in 1825 by the illustrious Baron Humboldt, who came to London to consult him on the problem of winds and currents. No more graceful tribute has been paid to his memory than that contained in a historical note on his life's work read to the French Academy in 1842 by the permanent secretary, Baron de Walkenaer, who, in his appreciation of Rennell's investigation of ocean currents, pointed out that he was never wholly satisfied with his own work, which he continued constantly to correct and amplify, so that he became reluctant to publish results during his own life. In the 'Public Characters of 1803,' to which reference has already been made, Rennell is represented as tall and well made, with a countenance no less expressive of dignity and sentiment than of general benevolence. His simplicity, his courtesy, and his genius for friendship had indeed made him one whom all regarded it as a privilege to know.

After the death of Sir Joseph Banks and when age and infirmity were contracting the activities of this genial philosopher, the distinguished society of travellers, of *savants*, and men of the world who had held reunions in their houses and in those of a few mutual friends decided that the time had come to provide some means of perpetuating such occasions for social intercourse. And so it was that a group of Rennell's most intimate friends founded a dining club which received the name of the *Raleigh*. Among them were Sir Arthur Broke, the organizer, Admiral Smyth, Colonel Leake the topographer of Greece, Franklin the arctic explorer, Cam Hobhouse the friend of Byron, Marsden, Roderick Murchison, Captain Beaufort, Basil Hall, Mountstuart Elphinstone, Sir George Staunton, and many more; worthy successors of the old fellowship of the Mermaid Tavern. It was at a meeting of the Raleigh Club, barely two months after Rennell's death, that the decision was taken to found a Geographical Society, and less than two months later four hundred and sixty Fellows had already been enrolled. The Raleigh Club, which assisted at the birth of the Society, became in due course the Geographical Club. There can be little doubt that Rennell had during the last weeks of his life been interested in the project which his intimate friend Admiral Smyth and the Secretary of the Admiralty, Sir John Barrow, had simultaneously elaborated.

Of Rennell's two sons the elder, who had some talents of an artistic order, lived a retired life in the country. The second entered the Bengal Civil Service and died in India at the age of thirty-eight. It was his daughter Jane who

inherited his tastes and much of his ability. Having been his constant companion and assistant, she was well equipped to become his literary executor and superintend the publication of his posthumous volumes. She married in 1809 Captain, afterwards Rear-Admiral, Sir John Tremayne Rodd, whose long and varied experience at sea was of great service to Rennell in his hydrographic studies. To their children the veteran geographer particularly devoted himself in his latter years, and his letters to his grandson at a private school and afterwards at Eton, which are in the possession of the writer of this memoir, show how well he understood the art of being a grandfather. Those who believe in the transmission of inclinations by heredity will be interested to note that in the year preceding the centenary of his death the Founder's Medal of the Royal Geographical Society was awarded to his great-great-grandson, Francis Rennell Rodd, for his surveying work in the central Sahara.

By abstemiousness, exercise, and regular habits Rennell succeeded to a great extent in overcoming the constitutional weakness resulting from his wounds and fevers in India. But with advancing years he suffered repeatedly from an acute form of gout, which kept him for long periods confined to his bed or reclining on a sofa. A fall from a chair at the end of 1829, which caused a fracture of the thigh, finally precluded him from any further physical activity, and he died in his eighty-eighth year on 29 March 1830. He was buried in Westminster Abbey in the middle of the nave opposite the West Cloister door. An inscribed stone over the grave and a bust on the window-ledge of the Belfry Chapel under the north-west tower commemorate the Father of English Geography.

RENNELL RODD.